



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,612	10/18/2001	Kang G. Shin	UOM 0216 PUSP	8256

22045 7590 08/05/2005

BROOKS KUSHMAN P.C.
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075

EXAMINER

BHATIA, AJAY M

ART UNIT	PAPER NUMBER
----------	--------------

2145

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,612

Applicant(s)

SHIN ET AL.

Examiner

Ajay M. Bhatia

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/10/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/21/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

20 ***Claim Rejections - 35 USC § 112***

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then

Art Unit: 2145

narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 9 and 19 recites the broad recitation "throttling prevents all of the network traffic from reaching the network", and the claim 1 also recites, "throttling the network traffic to the network computer based on the selected subset of the rule" which is the narrower statement of the range/limitation.

In the present instance, claim 10 and 20 recites the broad recitation "throttling allows all of the network traffic from reaching the network", and the claim also recites, "throttling the network traffic to the network computer based on the selected subset of the rule" which is the narrower statement of the range/limitation.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9, 10, 19, 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to disclose, "prevents all of the network traffic" and "allows all of the network traffic".

5

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15 Claims 1-7, 9-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engel et al. (U.S. Patent 6,519,636) in view of Haddock et al. (U.S. Patent 6,104,700). Note claims 8 and 18 have been canceled.

For claim 1, Engel teaches, a method for controlling network traffic to a network
20 computer which provides network computer services, the method comprising:
measuring capacity of the network computer to service the network traffic to obtain a
signal; (see Engle, Col. 6 lines 17-26 and 44-55)
providing a set of rule data which represents different policies for servicing the network
traffic; (see Engle, Col. 4 lines 49-59)
25 selecting a subset of the rule data based on the signal; and (see Engle, Col. 7 line 41 to
Col. 8 line 17)

Art Unit: 2145

throttling the network traffic to the network computer based on the selected subset of the rule data wherein services provided by the network computer are optimized without overloading the network computer and to enable automatic resource allocation differentiating preferred customers from non-preferred customers.

- 5 (see Engle, Col. 8 lines 18-25, Col. 8 line 43 to Col. 9 line 43, Col. 4 lines 48-59, a policy system is an automatic system since resources are allocated based on the rules automatically apply to the criteria of the rule. The resource allocation changes to meet the criteria of the rules. For example see Col. 9 lines 10-43, describes how rules are able to implement the two leaky bucket system which is able to control the peak rate,
- 10 average rate, maximum packet size, etc... Another example of how rules are automatic Col. 8 lines 4-18, which shows how when a rule is applied it applies to all the traffic between 2 address the system automatically applies the rule of encrypting all messages between X and Y with the W encryption key and the Z algorithm. Also Col. 10 lines 3-14, shows a rule which automatically inspects all incoming packets and discards all
- 15 packet that are not encrypted and decrypts the one that are properly received automatically as the rule applied.)

- Engel et al. fails to clearly disclose, to obtain a selected subset of rule data which represents quality of service differentiations and wherein the network traffic is throttled
- 20 so that the network computer provides quality of service differentiation

Haddock et al. teaches, to obtain a selected subset of rule data which represents quality of service differentiations and wherein the network traffic is throttled so that the network computer provides quality of service differentiation (see Haddock, Col. 3 lines 35-45, Col. 8 line 57 to Col. 9 line 15)

5

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to integrate Haddock's method of creating Quality of Service rule with the rule based server of Engle in order to increase the amount of control over the network the Network manager or network administrator has and/or to improve the service for media. (see Haddock et al., Col. 2 lines 23-30, Col. 1 lines 23-31) and (see Engle, Col. 1 line 26-50)

For claim 2, Engle teaches, the method as claimed in claim 1 wherein the network computer is a server and wherein the network traffic includes requests for service from network clients over the network. (see Engle, Col. 12 lines 52-62, denial of service is an attack by use of SYN request, which is a type of request for service)

For claim 3, Engle teaches, the method as claimed in claim 2 wherein the network is the Internet and the server is an Internet server. (see Engle, Col. 6 lines 16-44, Col. 7 lines 13-22)

20

Art Unit: 2145

For claim 4, Engel teaches, the method as claimed in claim 1 wherein the network traffic includes denial of service attacks. (see Engle, Col. 12 lines 52-62)

For claim 5, Engel teaches, the method as claimed in claim 1 further comprising
5 organizing the set of rule data in at least one multi-dimensional coordinate system. (see Engle, Col. 7 lines 41 to Col. 8 line 17, a hash with a bucket implementation is inherently a multi-dimensional coordinate system)

For claim 6, Engel teaches, the method as claimed in claim 5 wherein the capacity of
10 the network computer includes load components or load component indices and wherein the dimensions of the at least one multi-dimensional coordinate system corresponds to the load components or load component indices (see Engle, Col. 7 lines 41 to Col. 8 line 17, the use of address, port, flow parameter, control parameter, state parameters, socket, and protocol data with the use of the hash function inherently
15 correspond to the load component indices)

For claim 7, Engle teaches, the method as claimed in claim 1 further comprising the step of classifying network traffic to the network computer to obtain a plurality of traffic classifications and wherein the step of throttling is based on the plurality of traffic
20 classifications. (see Engle, Col. 8 line 43 to Col. 9 line 43)

For claim 9, Engle teaches, the method as claimed in claim 1 wherein the step of throttling prevents all of the network traffic from reaching the network computer. (see Engle, Col. 12, lines 5-18)

- 5 For claim 10, Engle teaches, the method as claimed in claim 1 wherein the step of throttling allows all of the -network traffic to reach the network computer. (see Engle, Col. 11 line 65 to Col. 12 line 5)

Claims 11-20 list all the same elements of claims 1-10, but in system form rather than
10 method form. Therefore, the supporting rationale of the rejection to claims 1-10 applies equally as well to claims 11-20.

Response to Arguments

Applicant's arguments filed May 10, 2005 have been fully considered but they are
15 not persuasive. Applicant has amended the claims but fails to differentiate the claims from the cited prior art.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208
20 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant has address the limitations from claim 8 that were incorporated into independent claim 1, separately and not as a combination of references, therefore the

Art Unit: 2145

arguments are not persuasive. As to the argument of the new added limitation of an "automatic resource allocation" was also not addressed as the combination of the reference. In response to the "automatic resource allocation" applicant has amended to add a feature which is inherent to a policy based qos (quality of service) system.

5

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
10 MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
15 the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached UPSTO 892 (if appropriate).

20

Art Unit: 2145


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay M. Bhatia whose telephone number is (571)-272-3906. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia M. Wallace can be reached on (571)-272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

15

AB


PATRICE WINDER
PRIMARY EXAMINER